

PATENT

Attorney Docket No.: DN 03-021

**Listing of Claims:**

The following listing of claims replaces all previously submitted listing of claims.

1. (currently amended) A refractory composition ~~consisting essentially of~~ comprising:
  - (a) a magnesia based refractory material;
  - (b) sulfamic acid; and
  - (c) ~~from about 1.0 percent by weight of total refractory composition to about 8.0 percent by weight of total refractory composition calcia, wherein the calcia is selected from the group consisting of calcium oxide and calcium hydroxide~~ calcium hydroxide in concentration between greater than 5.0 percent to 8.0 percent by weight of total refractory composition.
2. – 5. (canceled)
6. (currently amended) The refractory composition of Claim ~~[[3]]~~ 1 wherein the calcium hydroxide concentration is ~~from about 3.0~~ between greater than 5.0 percent to about ~~[[5.0]]~~ 7.0 percent by weight of the total refractory composition.
7. (currently amended) The refractory composition of Claim ~~[[3]]~~ 1 wherein the calcium hydroxide concentration is ~~from about 3.5~~ between 5.5 percent to about ~~[[4.5]]~~ 6.5 percent by weight of the total refractory composition.
8. (canceled)
9. (currently amended) The refractory composition of Claim ~~[[4]]~~ 1, further comprising ~~wherein the calcium oxide in concentration is from~~ between about ~~[[3.0]]~~ 0.5 percent to about ~~[[5.0]]~~ 1.0 percent by weight of the total refractory composition.

## PATENT

Attorney Docket No.: DN 03-021

10. (currently amended) The refractory composition of Claim ~~[[4]]~~ 6, further comprising wherein the calcium oxide in concentration is from between about ~~[[3.5]]~~ 0.5 percent to about ~~[[4.5]]~~ 1.0 percent by weight of the total refractory composition.

11. (original) The refractory composition of Claim 1 wherein the sulfamic acid is from about 1.0 percent by weight to about 5.0 percent by weight of the total refractory composition.

12. (previously presented) The refractory composition of Claim 11 wherein the sulfamic acid is from about 2.0 percent by weight to about 4.0 percent by weight of the total refractory composition.

13. (previously presented) The refractory composition of Claim 12 wherein the sulfamic acid is from about 2.5 percent by weight to about 3.5 percent by weight of the total refractory composition.

14. - 19. (canceled)

20. (currently amended) A refractory gunning composition consisting essentially of:

a) a magnesia-based refractory;

b) sulfamic acid;

c) ~~from about 1.0 percent by weight total refractory composition to about 8.0 percent by weight total refractory composition calcia, wherein the calcia is selected from the group consisting of calcium oxide and calcium hydroxide~~ calcium hydroxide in concentration between greater than 5.0 percent to 8.0 percent by weight of total refractory composition;  
and~~[[,]]~~

d) a wetting agent.

21. - 34. (canceled)

## PATENT

Attorney Docket No.: DN 03-021

35. (New) The refractory composition of claim 6, wherein the sulfamic acid is from about 1.0 percent by weight to about 5.0 percent by weight of the total refractory composition.
36. (New) The refractory composition of claim 35, wherein the sulfamic acid is from about 2.0 percent by weight to about 4.0 percent by weight of the total refractory composition.
37. (New) The refractory composition of claim 36, wherein the sulfamic acid is from about 2.5 percent by weight to about 3.5 percent by weight of the total refractory composition.
38. (New) The gunning composition according to claim 20, wherein the sulfamic acid concentration is from about 1.0 percent to about 5.0 percent by weight of the gunning composition;  
the wetting agent concentration is from about 0.05 percent to about 0.5 percent by weight of the gunning composition; and  
further comprising calcium oxide in concentration from about 0.5 percent to about 1.0 percent by weight of the total refractory composition.
39. (New) The gunning composition according to claim 20, wherein the sulfamic acid concentration is from about 2.0 percent to about 4.0 percent by weight of the gunning composition;  
the wetting agent concentration is from about 0.05 percent to about 0.5 percent by weight of the gunning composition; and  
further comprising calcium oxide in concentration from about 0.5 percent to about 1.0 percent by weight of the total refractory composition.
40. (New) The gunning composition according to claim 20, wherein the sulfamic acid concentration is from about 2.5 percent to about 3.5 percent by weight of the gunning composition;

## PATENT

Attorney Docket No.: DN 03-021

the wetting agent concentration is from about 0.05 percent to about 0.5 percent by weight of the gunning composition; and  
further comprising calcium oxide in concentration from about 0.5 percent to about 1.0 percent by weight of the total refractory composition.

41. (New) The gunning composition according to claim 20, wherein the calcium hydroxide concentration is from greater than 5.0 percent to about 7.0 percent by weight of the total refractory composition.

42. (New) The gunning composition according to claim 20, wherein the calcium hydroxide concentration is between 5.5 percent to about 6.5 percent by weight of the total refractory composition.

43. (New) The gunning composition according to claim 41, wherein the sulfamic acid concentration is from about 1.0 percent to about 5.0 percent by weight of the gunning composition;

the wetting agent concentration is from about 0.05 percent to about 0.5 percent by weight of the gunning composition; and

further comprising calcium oxide in concentration from about 0.5 percent to about 1.0 percent by weight of the total refractory composition.

44. (New) The gunning composition according to claim 41, wherein the sulfamic acid concentration is from about 2.0 percent to about 4.0 percent by weight of the gunning composition;

the wetting agent concentration is from about 0.05 percent to about 0.5 percent by weight of the gunning composition; and

further comprising calcium oxide in concentration from about 0.5 percent to about 1.0 percent by weight of the total refractory composition.

## PATENT

Attorney Docket No.: DN 03-021

45. (New) The gunning composition according to claim 41, wherein the sulfamic acid concentration is from about 2.5 percent to about 3.5 percent by weight of the gunning composition;

the wetting agent concentration is from about 0.05 percent to about 0.5 percent by weight of the gunning composition; and

further comprising calcium oxide in concentration from about 0.5 percent to about 1.0 percent by weight of the total refractory composition.